

A NEW ARCTOCORIXA WITH A NOTE ON
SYNONYMY (HEMIPT., CORIXIDAE).*

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There appear to be two known species of *Arctocorixa* in Northeastern America having the elytra conspicuously marked by three longitudinal blackish lines. Both have been commonly referred to as *A. trilineata* Prov., but the writer recently pointed out (*Can. Ent.*, LXI, 34, 1929) that the true *trilineata* is restricted to the form having the elongate male pala with the "pegs" in a single row. The form with the shorter more rectangular pala with the "pegs" in two rows is a distinct species and examples studied by the writer differ in several important structural details from the species described by Provancher.

In 1771 (*Novae Species Insectorum*, Cent. I, p. 70) Forster described under the name *Notonecta lineata* a species of *Arctocorixa* having three longitudinal fuscous lines on the elytra. The locality data given by Forster, "in aquis provinciae Noveboracensis in America Septentrionali" is sufficiently vague to include the range of both the above forms. A study of the essential characters contained in Forster's description has led the writer to believe that Provancher's species is identical with *A. lineata* (Forst.). Beyond the fact that specimens of *trilineata* are slightly larger and strictly speaking have four to six instead of three transverse pronotal black bands there are apparently no distinguishing characters. Moreover the number of lines on the prothorax has been shown to vary slightly in *Arctocorixa*, thus in some specimens there are three broad median bands with narrower and shorter anterior and posterior bands so that the general aspect is distinctly three banded. The following synonymy is therefore proposed.

Arctocorixa lineata (Forst.)

Notonecta lineata Forster, *Nov. Spec. Ins.* Cent. I, 70, 1771.

Notonecta noveboracensis Gmelin in Linnaeus, *Syst. Nat.*, edn. 13, I, pt. 4, p. 2119, 1788 (unnecessary n. n. for *lineata* Forst.).

Turton, Linnaeus, *Syst. Nat.* edn. 13, II, p. 605, 1806. Engl. tr.

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Corisa trilineata Provancher, Nat. Can. IV, p. 108, 1872
(New Synonymy).

Corisa trivittata Provancher, Pet. Faune Ent. Can., III, p. 203, 1888 (unnecessary change of name).

Arctocorixa trilineata (Prov.), Walley, Can. Ent. LXI, 34, 1929.

The three lined form with the short pala with the "pegs" in two rows is a closely allied species but can scarcely be *lineata* since the pronotum bears six or seven regular transverse blackish bars and the yellow on the elytra is reduced so that the three longitudinal blackish marks are less stripe-like and the general aspect is scarcely pale flavous as stated by Forster. Since this species is apparently without a valid name it is described as follows:

***Arctocorixa impersonata* n. sp. (Figs. 1, 2, 3, 4, 5.)**

Male.—Length 5.75 mm. Head from above broadly rounded in front. Vertex from above slightly longer than shortest distance between eyes. Inner posterior angles of eyes remote from occipital margin. Front with median oval depression almost as in *lineata*, just surpassing lower margin of eyes, in width as broad as greatest interocular space. Vertex smooth, shining, a few punctures as in *lineata*. Apical antennal segment slender, three-fifths as long as the much stouter sub-apical segment. Lateral lobe of prothorax as in fig. 5. Exposed disk of pronotum twice as wide as long, a short very faint carina at middle in front; posterior margin rather evenly curved with only a faint broad angulation at middle, surface shining, with fine shallow rastrations. Metaxyphus as in fig. 3, small, rather short with apex forming an angle of almost 90 degrees. Front femora oval in cross-section, stridular area large, extending well beyond middle beyond which is a dispersed patch of short stouter sub-erect setae. Tibiae about twice as long as broad, only bluntly carinate above. Palae as in fig. 1, rather short, sub-rectangular, thinner than tarsi without strong carina on outer face and with pegs on inner face in two rows, about eighteen in a row which begins near inner basal angle and runs outward and gradually upward in an almost straight line to end sub-marginally at about apical third of pala; a shorter marginal row of six or seven slightly longer pegs beginning on upper margin above and close to end of former row, continuing along curve of margin terminating distinctly before

apex. Clavus distinctly and evenly rastrate throughout; corium with finer more confused rastrations becoming only obscurely roughened toward apex; corium with very fine sparse appressed yellowish hairs. Strigil small with three striae. Right clasper slender gradually curved, very slightly broader before the short pointed apex.

Color pattern simulating *A. lineata* but with black markings predominant. Head, legs, thoracic pleura and venter (except for brown mesosternum), dull yellow. Pronotum with ground color dull yellow, disk narrowly blackish margined behind and with six or seven almost regular transverse blackish bars which are slightly broader than the yellowish interspaces. Clavus predominantly blackish with the yellowish intervals narrower than the transverse blackish bars, the latter extending transversely from outer to inner margins with their bases fused along inner margin. Corium with three broad longitudinal blackish stripes separated by narrower more broken series of vermiculate yellowish flecks. Embolar margin broadly fuscous yellow; a yellow dash separating corium from membrane area, the latter with a circumferential row of blackish flecks which fuse outwardly, also a rather broad median longitudinal vermiculate blackish patch joined in places with the marginal flecks. Venter of abdomen yellowish brown with basal three and lobes of last ventral darker brownish, pale margined.

Female.—Slightly more robust than the male. Palae stout, not more than two and one-half times as long as broad. Color pattern as in fig. 2.

Holotype.—♂, Fairy Lake, Que., Sept. 11, 1928, (G. S. Walley); No. 3180 in the Canadian National Collection, Ottawa, Ont.

Allotype.—♀, same data as holotype.

Paratypes.—3 ♂♂, 4 ♀♀, Fairy Lake, Que., May 17, 1927, (Walley); ♂, Fairy Lake, Oct. 2, 1927, (Walley); 6 ♂♂, 2 ♀♀, Fairy Lake, Sept. 9–11, 1928, (Walley and Brown); 3 ♂♂, 2 ♀♀, Rideau River, Ottawa, Ont., Apr. 16, 1927, (Walley); 5 ♂♂, 2 ♀♀, Rideau River, Ottawa, Nov. 15, 1928, (Walley); 6 ♀♀, Merivale, Ont., May 9, 14, 1930, (Walley); ♂, ♀, Orono, Maine, Apr. 20, 1912, (H. M. Parshley); 2 ♀♀, Orono, May 6, 1914, (Parshley); ♂, Ithaca, N. Y., July 18, 1919.

Holotype, Allotype and Paratype in Canadian National Collection, Ottawa. Paratypes in collection of Mr. J. R. de la Torre-Bueno, White Plains, N. Y.

Notes.—Traces to *A. trilineata* (Prov.) = *lineata* (Forst.) in keys to species of *Arctocorixa*. Differs from *lineata* in arrangement of palar pegs; the interocular space on vertex is noticeably narrower in *impersonata*; the apical antennal is three-fifths as long as sub-apical not half as long as in *lineata*. The lateral prothoracic lobe in *lineata* (fig. 7) is slightly narrower and more elongate and the metaxyphus while not large in either species is distinctly more acutely pointed in *lineata* (fig. 6). The front femur of the male is broader basally and somewhat flattened on inner basal area in *lineata*, in *impersonata* it is more ovate in cross-section. The female pala of *lineata* is at least three times as long as broad compared with two and one-half times in *impersonata*. The male strigil of the latter has only three striae, in *lineata* five. The male clasper (fig. 4) differs slightly and has the apex broader than in Forster's species which is usually as in fig. 6 (Can. Ent. LXI, 35, 1929) though in some specimens of *lineata* the small curved apex is less pronounced. The elytra of *lineata* are a little more heavily rastrate and the blackish pronotal bars a little less regular and slightly narrower. The elytral pattern of *impersonata* differs in having the yellow markings much less pronounced so that the three corial black stripes are not as sharply delimited as in *lineata*. In *impersonata* the yellow is reduced to longitudinal series of flecks not entire stripes as in *lineata*. The mid tarsus also lacks the narrow brown apex found in *lineata*.

EXPLANATION OF FIGURES.

Arctocorixa impersonata n. sp. 1. pala of male; 2. dorsal view showing color pattern; 3. metaxyphus; 4. right clasper of male, 5. lateral lobe of prothorax. *Arctocorixa lineata* (Forst.) 6. metaxyphus; 7. lateral lobe of prothorax.